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BEFORE THE  
**Federal Communications Commission**

WASHINGTON, D.C.

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APR 12 1996

In the Matter of )

Implementation of Section 301(j)  
of the Telecommunications Act of 1996 )

Aggregation of Equipment Costs  
By Cable Operators )

CS Docket No. 96-57

COMMENTS OF GENERAL INSTRUMENT CORPORATION

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**COMMENTS OF GENERAL INSTRUMENT CORPORATION**

General Instrument Corporation ("GI") hereby submits its comments on the Notice in the above-captioned proceeding.<sup>1</sup>

**I. INTRODUCTION AND SUMMARY**

Congress adopted the equipment averaging provision to facilitate the deployment of new technology and to promote the development of a national broadband infrastructure.<sup>2</sup>

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<sup>1</sup> In the Matter of Implementation of Section 301(j) of the Telecommunications Act of 1996, Aggregation of Equipment Costs, CS Docket No. 96-57, FCC 96-117 (released March 20, 1996) ("Notice").

<sup>2</sup> H.R. Rep. 204, 104th Cong., 1st Sess. 107-108 ("House Report").

Specifically, Congress allowed cable operators to average customer equipment costs in two ways:

- Categorical Averaging -- Averaging equipment into broad categories, regardless of the level of functionality; and
- Geographic Averaging -- Averaging across broad geographic areas, including franchise, system, regional, and company level.

Congress recognized that subscribers using advanced customer equipment, such as digital boxes, will derive greater benefits as the total number of subscribers in the network using such equipment increases. Congress also realized, however, that the large installed base of analog technology and the fact that the Commission's existing equipment pricing rules produce rates for new customer equipment "too expensive for most consumers,"<sup>3</sup> would make it difficult for cable operators to deploy such new technology because subscribers will have a bias towards the less expensive and more prevalent installed base of products.<sup>4</sup>

Equipment averaging enables cable operators to "allocate the costs of [advanced] equipment in a manner that reduces the price

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<sup>3</sup> Id.

<sup>4</sup> For a discussion of these installed-base effects, see Joseph Farrell and Garth Saloner, "Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation," American Economic Review, vol. 76, at 940-55 (Dec. 1986); Michael L. Katz and Carl Shapiro, "Product Introduction with Network Externalities," The Journal of Industrial Economics, vol. XL, at n. 1 (Mar. 1992).

for consumers."<sup>5</sup> As such, it allows cable operators to overcome the restrictions of the current equipment pricing rules and the bias for the installed base of analog technology, thereby facilitating the deployment of new technology in fulfillment of Congress's objectives.

GI has been at the forefront in introducing advanced technology in the broadband industry and can attest that the only constant in this industry is change. Thus, achieving Congress's objectives will not be a one-time event or a static proposition; rather, it will be an ongoing and constantly evolving process. To achieve Congress's objectives in this highly dynamic environment, the Commission should adopt rules which are sufficiently flexible to evolve as technology evolves. Moreover, it is critical that cable operators be afforded maximum leeway to broadly average advanced customer equipment as it is developed. Flexible equipment averaging rules will encourage: (1) equipment manufacturers, like GI, to invest aggressively in research and development and to design and produce innovative broadband customer equipment; and (2) cable operators to deploy these technologies on a wide scale. By contrast, narrow and inflexible rules will not be able to accommodate the rapid pace of

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<sup>5</sup> House Report at 108.

technological change and will therefore undermine Congress's fundamental policy objectives.

Applying this flexible regulatory approach to each of the issues raised in the Notice, GI recommends the following:

#### **CATEGORICAL AVERAGING**

- The Commission should adopt the "broad categories" test contained in Section 301(j) of the 1996 Act. Not only is this test statutorily mandated, but as a practical matter it corresponds to the three categories of cable customer equipment recognized in the Commission's existing rules -- converter boxes, remote controls, and inside wiring. Given the highly dynamic nature of the broadband marketplace, the rules should be flexible enough to allow the broadening of these existing categories to permit the inclusion of new customer equipment.
- The proposed "primary purpose" test should not be adopted. At best, it is unnecessary in light of the statutory "broad categories" test and at worst it may limit equipment averaging in ways that undercut cable operators' ability to meet Congress's objective to reduce the cost to consumers of new technology. Moreover, because customer equipment is increasingly complex and multi-purpose, disputes will inevitably arise about the "primary" purpose of a given piece of equipment.

#### **EQUIPMENT USED BY BASIC-ONLY SUBSCRIBERS**

- The Commission should clarify that the limitation on categorical averaging of equipment used by basic-only subscribers does not prohibit a cable operator from including the same equipment used by non-basic-only subscribers in broad categories for averaging purposes.
- The Commission should allow cable operators to average equipment used by basic-only subscribers on a geographic basis as a means of further promoting the deployment of new technology.

#### **ADDITIONAL OUTLETS**

- The Commission should clarify that customer equipment used with additional outlets may be included in the same broad

category for averaging purposes as customer equipment used with initial connections.

## **II. CATEGORICAL AVERAGING**

### **A. The Commission Should Adopt the "Broad Categories" Test Contained in the 1996 Act.**

Congress instructed the Commission to "allow cable operators ... to aggregate ... their equipment costs into broad categories, regardless of the level of functionality of the equipment within each such broad category." In doing so, it established the "broad categories" test for averaging equipment costs. This test not only achieves Congress's desire to permit cable operators to average in a manner that reduces equipment costs for consumers, but it makes sense as a practical matter. Congress recognized that the Commission's current rules identify three types of customer equipment -- converter boxes, remote controls, and inside wiring.<sup>6</sup> Each of these types of equipment constitutes a "broad category" under section 301(j).<sup>7</sup>

Moreover, the Commission should adopt flexible rules that allow the equipment categories to evolve as technology evolves. As a central player in the equipment manufacturing business, GI

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<sup>6</sup> See 47 C.F.R. § 76.923(a).

<sup>7</sup> In fact, the actual words used in the equipment averaging provision identify "converter boxes" as an example of the type of equipment that may be included in the same broad category for averaging purposes.

can attest that the state of customer equipment is highly dynamic, and it is not possible to predict with any degree of confidence what equipment will need to be averaged in the future to meet Congress's goal of making such equipment affordable for consumers. It is therefore critical that the Commission allow new types of equipment to be placed in the current categories. For example, when new types of advanced boxes are developed for use in cable systems, the "converter box" label may need to be broadened to allow such advanced technology to be averaged with other boxes that are used to receive services delivered over the cable system.

GI's design and development efforts with respect to innovative broadband technologies will be significantly increased if the Commission's rules contain the flexibility required to incorporate such new technology into the averaging process. Of paramount importance to equipment manufacturers is the knowledge that the regulatory climate is conducive to investment by distributors in new technologies. By establishing flexible equipment averaging categories that will evolve as technology evolves, the Commission will allow cable operators to price these new technologies in such a way that the cost to consumers will be low enough to streamline their deployment. This will drive more significant operator investment in new technologies and provide equipment manufacturers, such as GI, with a strong incentive to continue to innovate.



**B. The Primary Purpose Test May Lead to an Impermissible Focus on the Equipment's Functionality.**

GI is concerned that the primary purpose test proposed in the Notice<sup>8</sup> could inadvertently limit the scope of equipment averaging. This is particularly true because most equipment has multiple purposes or functions. For example, a digital box will convert digital signals to analog, tune channels, decrypt encrypted services, perhaps provide an interactive program guide, offer parental control features, etc. Thus, a primary purpose test could be construed to prevent an operator from averaging two pieces of the same type of multi-purpose equipment simply because they are deemed to have different primary purposes. This problem with the primary purpose test likely will increase in the future as equipment becomes more complex in order to support advanced interactive uses.

There are two additional problems with the primary purpose test. First, because equipment typically has multiple purposes, the test inevitably will cause disputes and uncertainty as parties debate what is the "primary" purpose of a particular piece of equipment. Second, focusing on the "purpose" of a piece of equipment is the equivalent of focusing on the equipment's various functions to determine which function is most important.

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<sup>8</sup> See Notice at ¶ 9.

However, the Act specifically prohibits such an analysis in that averaging may take place "regardless of functionality."

For these reasons, GI urges the Commission to reject the primary purpose test.

### **III. EQUIPMENT USED BY BASIC-ONLY SUBSCRIBERS**

#### **A. Categorical Averaging**

GI agrees with the Notice's tentative conclusion that by incorporating the basic-only exception in section 301(j), Congress intended that basic-only subscribers not subsidize the costs of more sophisticated equipment used by non-basic-only subscribers.

However, the Commission should clarify one aspect of the basic-only exception -- since the same piece of customer equipment may be used by both basic-only subscribers and non-basic-only subscribers, there is, in fact, no such thing as basic-only equipment. For example, basic-only and non-basic-only subscribers may use the same converter boxes and/or remote control devices. In light of this equipment overlap, the Commission should make clear that categorical averaging is permitted for equipment used by non-basic-only subscribers, even if the same equipment is also used by basic-only subscribers.<sup>9</sup>

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<sup>9</sup> Also, to avoid confusion and disputes, the Commission should make it clear that "basic-only" subscribers for this purpose means subscribers who subscribe only to the "basic service tier" as defined in section 623(b)(7) of the Communications Act.

## **B. Geographic Averaging**

GI supports the Commission's proposal that cable operators should be allowed to geographically average the costs of equipment used by basic-only subscribers.<sup>10</sup> Such averaging does not contravene Congress's concern that basic-only subscribers not subsidize the costs of more sophisticated equipment used by non-basic-only subscribers.

Moreover, such geographic averaging will reduce the cost of more expensive equipment that may be used by basic-only subscribers. Even within the same "significantly different" category, there are differences between pieces of equipment. For example, some subscribers have older converter boxes that are fully depreciated and have very low monthly lease rates. Without geographic averaging, the introduction of newer models of equipment could produce large equipment rate increases for basic-only subscribers. By contrast, geographic averaging of equipment used by basic-only subscribers will eliminate such large rate increases. The Commission cited this benefit when it approved the use of geographic equipment averaging in the Social Contract context.<sup>11</sup>

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<sup>10</sup> See Notice at ¶ 13.

<sup>11</sup> See, e.g., Continental Social Contract Order, 11 F.C.C.R. 299 (1995), ¶ 31 ("[E]quipment averaging will minimize drastic increases in rates for subscribers as upgrades take place ....").

In addition, given the fact that most basic-only subscribers use the same, low-level type equipment, geographic averaging will produce only modest price fluctuations for the equipment used by these subscribers.

Finally, as the Commission has noted in other contexts, geographic averaging of cable service rates will achieve substantial marketing, administrative, and regulatory efficiencies.<sup>12</sup> These same efficiencies will be achieved if cable operators are allowed to use geographic averaging to generate uniform equipment rates for all subscribers, including basic-only subscribers. These efficiencies will, in turn, further streamline the deployment of advanced customer equipment.

**IV. THE COMMISSION SHOULD ALLOW CABLE OPERATORS TO INCLUDE EQUIPMENT USED WITH ADDITIONAL OUTLETS IN THE SAME BROAD CATEGORY AS EQUIPMENT USED WITH INITIAL CONNECTIONS.**

The Notice tentatively concludes that "additional connections may not be aggregated with initial connections into a broad category."<sup>13</sup> Although the meaning of this conclusion is

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<sup>12</sup> See Uniform Rate-Setting Methodology, CS Docket No. 95-174 (released November 29, 1995), at ¶ 12 ("[F]acilitating an operator's ability to advertise a single rate for cable service over a broad geographic region may lower marketing costs and enhance the operator's efficiency in responding to competition from alternative service providers that typically may establish and market uniform services and rates without regard to franchise area boundaries").

<sup>13</sup> See Notice at ¶ 10.

not clear, GI assumes the Commission is referring to the fact that any additional programming costs that may be incurred by the cable operator to serve additional outlets may not be included in a broad equipment category for averaging purposes.

Alternatively, perhaps the Commission is merely suggesting that cable operators will still be required to establish different rates for the installation of additional outlets and the installation of an initial connection based on the HSC times the actual or average time to complete each type of installation.

At any rate, GI requests that the Commission clarify that cable operators are not limited from incorporating equipment used in conjunction with additional outlets into a broad category that includes equipment used in conjunction with initial cable connections. This clarification is necessary to avoid uncertainty and inadvertent limitations on the averaging process. Moreover, it is fully consistent with the plain meaning of section 301(j) which only limits averaging of equipment used by basic-only subscribers. Aside from this narrow exception, operators may average costs for all other equipment into broad categories, including any equipment used with additional outlets.

Finally, such aggregation is fully consistent with Congress's policy objectives. Given the substantial amount of customer equipment (such as converter boxes and remotes) that are used in conjunction with additional outlets, if the Commission were to disallow the aggregation into the same broad category of

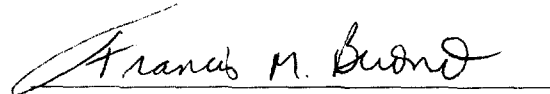
the equipment costs for additional outlets and initial connections, it would severely impair Congress's goal of producing lower costs to consumers for new customer equipment.

**CONCLUSION**

Based on the foregoing, GI respectfully requests that the Commission adopt flexible equipment averaging rules consistent with the comments herein.

Respectfully submitted,

**GENERAL INSTRUMENT CORPORATION**

A handwritten signature in cursive script, reading "Francis M. Buono", is written over a horizontal line.

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